WEST Search History

DATE: Wednesday, March 26, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=ADJ		
L32	L31 and l6	55	L32
L31	l28 and l3	98	L31
L30	l28 same l27	0	L30
L29	L28 same l3	2	L29
L28	recombinant with cell	25179	L28
L27	L26 or l25	56	L27
L26	bilin	52	L26
L25	alpha.beta?heterodimer	4	L25
L24	L23 not l18	8	L24
L23	L22 and bilin	8	L23
L22	l3 and domain	113	L22
L21	holophycobiliprotein	0	L21
L20	l15 and l3 and fusion	0	L20
L19	l15 and l6	1	L19
L18	l15 and l3	8	L18
L17	l15 and l5	1	L17
L16	l15 with l5	0	L16
L15	("GLAZER-ALEXANDER".IN. | "GLAZER-ALEXANDER-M".IN. | "GLAZER-ALEXANDER-N".IN.)!	36	L15
L14	l8 not l3	599	L14
L13	recombinant with phycobiliprotein	2	L13
L12	recombinant phycobiliprotein	0	L12
L11	l7 same l8	0	L11
L10	L9 not l4	0	L10
L9	l8 same l3	2	L9
L8	l6 same l5	601	L8
L7	heterologous protein domain	18	L7
L6	fusion protein	14651	L6
L5	recombinant cell	5094	L5
L4	L3 same recombinant cell	2	L4
L3	phycobiliprotein	447	L3
L2	holo adj phycobiliprotein	0	L2

WEST

End of Result Set

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L3: Entry 12 of 12 File: USPT May 28, 1985

DOCUMENT-IDENTIFIER: US 4520110 A
TITLE: Fluorescent immunoassay employing a phycobiliprotein labeled ligand or receptor

Abstract Text (1):
Sensitive detection techniques and compositions for such techniques employing fluorescent proteins having bilin prosthetic groups as labels i.e. phycobiliprotein. The bilin containing proteins can be conjugated to ligands or receptors for use in systems involving ligand-receptor binding for the analysis, detection or separation of ligands and receptors. Particularly, one or more of the bilin containing proteins may be used as labels in conjuction with each other or other fluorescers for defining subsets of naturally occurring aggregations e.g. cells.

Brief Summary Text (8):
Proteins with bilin prosthetic groups are employed as fluorescent labels in systems involving ligand-receptor reactions. The biliproteins are readily conjugated, provide for high quantum efficiency with absorption and emission at long wavelengths in the visible, and enhance the sensitivity and accuracy of methods involving ligand-receptor reactions. The biliproteins may be used individually, in combination, or together with non-proteinaceous fluorescers.

Detailed Description Text (2):
Compositions are provided comprising biliproteins, (the term "biliproteins" is equivalent to the term "phycobiliproteins") conjugated to a member of a specific binding pair, said pair consisting of ligands and receptors. These compositions find use for labeling by non-covalent binding to the complementary member of the specific binding pair. A wide variety of methods involve competitive or non-competitive binding of ligand to receptor for detection, analysis or measurement of the presence of ligand or receptor. Many of these techniques depend upon the presence or absence of fluorescence as a result of non-covalent binding of the labeled member of the specific binding pair with its complementary member.

Detailed Description Text (10):
Known linking procedures as described in the above publications may be employed. For example, the phycobiliprotein may be reacted with iminothiolane, thereby placing an accessible sulfhydryl group thereon. The other component of the conjugate may be activated by reaction with succinimidylpyridylthiopropionate. Mixture of the two prepared components of the conjugate results in joining thereof through disulfide bonds. Alternatively, instead of employing succinimidylpyridylthiopropionate, the protein may be reacted with m-maleimidobenzoyl N-hydroxysuccinimide ester, and the resulting conjugate combined with the sulfhydryl modified protein to form a thioether.

Detailed Description Text (13):
Examples of phycobiliproteins useful in the present invention are allophycocyanin, phycocyanin, phycoerythrin, allophycocyanin B, B-phycoerythrin, phycoerythrocyanin, and b-phycoerythrin. The structures of phycobiliproteins have been studied and their fluorescent spectral properties are known. See A. N. Glazer, "Photosynthetic Accessory Proteins with Bilin Prosthetic Groups," Biochemistry of Plants, Volume 8, M. D. Hatch and N. K. Boardman, EDS., Academic Press, pp. 51-96 (1981), and A. N. Glazer, "Structure and Evolution of Photosynthetic Accessory Pigment Systems with

Special Reference to Phycobiliproteins," The Evolution of Protein Structure and Function, B. S. Sigman and M. A. Brazier, EDS., Academic Press, pp. 221-244 (1980). The spectroscopic properties, including fluorescence emission maxima, of some common phycobiliproteins are shown below in Table 1.

Detailed Description Text (24):
A second example of the joining of a phycobiliprotein to another biomolecule is provided by the synthesis of a phycoerythrin-avidin conjugate. Avidin was activated by the addition of m-maleimidobenzoyl N-hydroxysuccinimide ester (MBS). The ester group of MBS reacted with nucleophiles on avidin. Sulfhydryl groups on thiolated phycoerythrin then reacted with maleimide groups on activated avidin molecules. Uncombined avidin was removed from the reaction mixture by chromatography on carboxymethyl-Sephadex.

Detailed Description Text (26):
A third example of the joining of a phycobiliprotein to another biomolecule is provided by an alternative route for the synthesis of a phycoerythrin-avidin conjugate. Biotinylated phycoerythrin was prepared by reacting phycoerythrin with the N-hydroxysuccinimide ester of biotin. Avidin was added to biotinylated phycoerythrin to form a phycoerythrin-biotin-avidin conjugate (PE-B-A). Excess avidin was removed by gel filtration. PE-B-A, which binds very tightly to biotinylated molecules, was then used as a fluorescent stain in a fluorescence-activated cell sorting experiment. Biotinylated monoclonal antibody having specific affinity for immunoglobulin D (IgD) was added to a mixture of spleen cells. This monoclonal antibody combines with IgD molecules, which are present on the surface of about 40% of spleen cells. Excess antibody was removed by washing. PE-B-A was then added to this mixture of cells. The avidin unit of this highly fluorescent conjugate combined with biotin groups on cell surfaces bearing anti-IgG immunoglobulin. The fluorescence-activated cell sorter analysis of this cell population is shown in FIG. 2. The fluorescence intensity of cells labeled by the phycoerythrin conjugate is comparable to that obtained with a fluorescein conjugate in a parallel experiment. This finding demonstrates that phycobiliprotein conjugates are effective long wavelength fluorescent labels or fluorescence analyses of cells.

Detailed Description Text (28):
The phycoerythrin-biotin-avidin conjugate described above was also used to fluorescent-stain beads containing an antigen. Biotinylated monoclonal antibody having specific affinity for a target immunoglobulin was added to agarose beads (insoluble matrices) containing covalently attached target antigen. These beads were washed and PE-B-A was then added. Beads labeled with this fluorescent phycobiliprotein conjugate were examined by fluorescence microscopy. The labeled beads appeared yellow when viewed with a standard filter combination designed for fluorescein emission. With longer wavelength filters, the labeled beads appeared orange-red. A mixture of fluorescein-avidin labeled beads and PE-B-A labeled beads were also examined by fluorescence microscopy. The PE-B-A labeled beads could readily be distinguished from the fluorescein labeled beads because they were yellow rather than green (FIG. 3a) using fluorescein optics. With a longer wavelength set of filters, only the PE-B-A beads were brightly stained, in this case orange-red (FIG. 3b). These experiments show that phycobiliprotein-biomolecule conjugates are effective fluorescent stains for fluorescence microscopy.

Detailed Description Text (30):
Preparation of Phycobiliproteins

Detailed Description Text (63):
The phycobiliprotein conjugates open up a possibility of carrying out three-parameter analyses with two laser sources. For example, allophycocyanin could serve as the third fluorescent chromophore. In such a three-color experiment, fluorescein and phycoerythrin could be excited by the 488 nm argon-ion line and allophycocyanin by the 625 nm output of a dye laser (or by a krypton or helium-neon laser). The absorption and emission spectra of phycobiliproteins point to the possibility of four-color analyses if C-phycocyanin conjugates were also employed. The phycobiliproteins are well suited for fluorescence immunoassays. The fluorescence of femtomole quantities of phycobiliproteins such as phycoerythrin can readily be detected. Furthermore, background fluorescence from body fluids and

supporting media, diminishes markedly in going to the red end of the spectrum. The orange-red emission of phycobiliproteins is particularly advantageous in this regard. Furthermore, the phycobiliproteins can be conjugated to a wide variety of ligands and receptors without interfering with the functioning of the ligand or receptor in specific binding pairs, nor losing the desired spectral properties of the phycobiliproteins.

Detailed Description Paragraph Table (1):
TABLE 1 SPECTROSCOPIC PROPERTIES OF PHYCOBILIPROTEINS Absorption Fluorescence maxima in emission Distri- the visible.sup.2 maximum.sup.2 Biliprotein bution.sup.1 (nm) (nm)
Allophycocyanin B C,R 671 > 618 680
Allophycocyanin C,R 650 660 C--Phycocyanin C,R 620 637 R--Phycocyanin R 617 > 555 .+-. 636 Phycoerythrocyanin C 568 > 590(s) 607 C--Phycoerythrin C 565 577 b-Phycoerythrin R 545 > 563(s) 570 B--Phycoerythrin R 545 > 563 > 498(s) 575 R--Phycoerythrin C,R 567 > 538 > 498 578
.sup.1 C = cyanobacteria; R = red algae. .sup.2 For a given biliprotein, the exact positions of the absorption and emission maxima vary somewhat depending on the organism that serves as th source of the protein and on the method of purification.

Other Reference Publication (2):
Kronick et al., "Immunoassay Techniques with Fluorescent Phycobiliprotein Conjugates", Clinical Chem., vol. 29, #9, 1983, pp. 1582-1586.

CLAIMS:

1. In a fluorescent immunoassay employing as a reagent a fluorescent compound conjugated to a member of a specific binding pair where said pair consists of ligand and receptor, and said immunoassay is for the determination of a member, the binding of the conjugate to a member being indicative of the presence of said member, the improvement which comprises employing in said assay a fluorescent compound comprising a phycobiliprotein conjugated to a member of a specific binding pair consisting of ligand and receptor.

2. In a fluorescent method for detecting cells having a first specific determinant site, employing for fluorescent labeling a fluorescent reagent comprising a fluorescer and a member of a first specific binding pair, the improvement which comprises employing a fluorescent compound comprising a phycobiliprotein conjugated to a member of a specific binding pair consisting of ligand and receptor.

4. In a method for detecting the presence of a determinant site or a receptor, by employing a fluorescent reagent having a fluorescer bound to a member of a specific binding pair, wherein the binding of said fluorescent reagent to said determinant site or receptor is determined as indicative of the presence of said determinant site or said receptor, the improvement which comprises, employing a fluorescent compound comprising a phycobiliprotein conjugated to a member of a specific binding pair consisting of ligand and receptor.

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Search Results - Record(s) 1 through 10 of 12 returned.

☐ 1. Document ID: US 6458547 B1

L3: Entry 1 of 12 File: USPT Oct 1, 2002

US-PAT-NO: 6458547
DOCUMENT-IDENTIFIER: US 6458547 B1

TITLE: Apparatus and method for detecting and identifying infectious agents

DATE-ISSUED: October 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce J.	Beverly Hills	CA		
Gaalema; Stephen	Colorado Springs	CO		
Murphy; Randall B.	Irvington	NY		

US-CL-CURRENT: 435/7.1; 356/215, 356/222, 356/317, 422/57, 422/58, 422/82.05, 422/82.08, 435/288.7, 435/6, 435/808, 435/973, 435/975, 436/172, 436/527, 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6436682 B1

L3: Entry 2 of 12 File: USPT Aug 20, 2002

US-PAT-NO: 6436682
DOCUMENT-IDENTIFIER: US 6436682 B1

TITLE: Luciferases, fluorescent proteins, nucleic acids encoding the luciferases and fluorescent proteins and the use thereof in diagnostics, high throughput screening and novelty items

DATE-ISSUED: August 20, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce J.	Beverly Hills	CA		
Szent-Gyorgyi; Christopher	Pittsburgh	PA		

US-CL-CURRENT: 435/189; 124/74, 124/76, 222/1, 42/54, 435/183, 446/473

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6416960 B1

L3: Entry 3 of 12 File: USPT Jul 9, 2002

US-PAT-NO: 6416960
DOCUMENT-IDENTIFIER: US 6416960 B1

TITLE: Detection and visualization of neoplastic tissues and other tissues

DATE-ISSUED: July 9, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA		

US-CL-CURRENT: 435/7.23; 424/130.1, 424/133.1, 424/138.1, 424/141.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 6232107 B1

L3: Entry 4 of 12 File: USPT May 15, 2001

US-PAT-NO: 6232107
DOCUMENT-IDENTIFIER: US 6232107 B1

TITLE: Luciferases, fluorescent proteins, nucleic acids encoding the luciferases and fluorescent proteins and the use thereof in diagnostics, high throughput screening and novelty items

DATE-ISSUED: May 15, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce J.	Beverly Hills	CA	90210	
Szent-Gyorgyi; Christopher	Pittsburgh	PA		

US-CL-CURRENT: 435/189; 435/183, 435/252.2, 435/320.1, 435/6, 435/69.1, 435/8

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 6152358 A

L3: Entry 5 of 12 File: USPT Nov 28, 2000

US-PAT-NO: 6152358
DOCUMENT-IDENTIFIER: US 6152358 A

TITLE: Bioluminescent novelty items

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 229/87.19; 435/189, 493/955

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 6. Document ID: US 6113886 A

L3: Entry 6 of 12 File: USPT Sep 5, 2000

US-PAT-NO: 6113886
DOCUMENT-IDENTIFIER: US 6113886 A

TITLE: Bioluminescent novelty items

DATE-ISSUED: September 5, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 424/49; 424/63, 424/64, 424/69, 424/70.1, 424/70.6, 424/70.7, 424/78.02, 424/94.4, 435/189, 510/119, 510/135, 510/392, 510/481

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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☐ 7. Document ID: US 6048736 A

L3: Entry 7 of 12 File: USPT Apr 11, 2000

US-PAT-NO: 6048736
DOCUMENT-IDENTIFIER: US 6048736 A

TITLE: Cyclodextrin polymers for carrying and releasing drugs

DATE-ISSUED: April 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kosak; Kenneth M.	West Valley City	UT	84120	

US-CL-CURRENT: 436/536; 436/507, 514/58

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 8. Document ID: US 5876995 A

L3: Entry 8 of 12 File: USPT Mar 2, 1999

US-PAT-NO: 5876995
DOCUMENT-IDENTIFIER: US 5876995 A

TITLE: Bioluminescent novelty items

DATE-ISSUED: March 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 435/189; 426/104, 426/250, 426/262, 426/268, 426/383, 426/422, 426/540, 426/590, 426/592, 426/656, 426/66 , 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 9. Document ID: US 5055556 A

L3: Entry 9 of 12 File: USPT Oct 8, 1991

US-PAT-NO: 5055556
DOCUMENT-IDENTIFIER: US 5055556 A

TITLE: Fluorescent conjugates for analysis of molecules and cells

DATE-ISSUED: October 8, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		
Oi; Vernon T.	Menlo Park	CA		

US-CL-CURRENT: 530/370; 436/501, 436/547, 436/800, 436/805, 530/391.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 10. Document ID: US 4859582 A

L3: Entry 10 of 12 File: USPT Aug 22, 1989

US-PAT-NO: 4859582
DOCUMENT-IDENTIFIER: US 4859582 A

TITLE: Fluorescent conjugates for analysis of molecules and cells

DATE-ISSUED: August 22, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		
Oi; Vernon T.	Menlo Park	CA		

US-CL-CURRENT: 435/5; 435/6, 436/501, 436/519, 436/547, 436/800, 436/805, 530/807, 536/24.3

Terms	Documents
L2 and l1	12

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Search Results - Record(s) 11 through 12 of 12 returned.

☐ 11. Document ID: US 4857474 A

L3: Entry 11 of 12 File: USPT Aug 15, 1989

US-PAT-NO: 4857474
DOCUMENT-IDENTIFIER: US 4857474 A

TITLE: Phycoerythrins useful in fluorescent conjugates

DATE-ISSUED: August 15, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Waterbury; John B.	Woods Hole	MA		
Watson; Stanley W.	Woods Hole	MA		
Glazer; Alexander N.	Orinda	CA		
Ong; Linda J.	Hayward	CA		

US-CL-CURRENT: 436/501; 435/252.1, 435/822, 436/519, 436/536, 436/537, 436/546, 436/800, 530/370, 530/391.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 12. Document ID: US 4520110 A

L3: Entry 12 of 12 File: USPT May 28, 1985

US-PAT-NO: 4520110
DOCUMENT-IDENTIFIER: US 4520110 A

TITLE: Fluorescent immunoassay employing a phycobiliprotein labeled ligand or receptor

DATE-ISSUED: May 28, 1985

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		
Oi; Vernon T.	Palo Alto	CA		

US-CL-CURRENT: 436/501; 436/519, 436/536, 436/546, 436/800, 530/370, 530/371, 530/391.3, 530/402, 530/408, 530/409, 530/410, 530/825

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Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 5869255 A

L18: Entry 1 of 8 File: USPT Feb 9, 1999

US-PAT-NO: 5869255
DOCUMENT-IDENTIFIER: US 5869255 A

TITLE: Probes labeled with energy transfer couples dyes exemplified with DNA fragment analysis

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mathies; Richard	El Cerrito	CA		
Glazer; Alexander	Orinda	CA		
Ju; Jingyue	Berkeley	CA		

US-CL-CURRENT: 435/6; 536/24.3, 536/24.31, 536/25.32, 536/26.6

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 5728528 A

L18: Entry 2 of 8 File: USPT Mar 17, 1998

US-PAT-NO: 5728528
DOCUMENT-IDENTIFIER: US 5728528 A

TITLE: Universal spacer/energy transfer dyes

DATE-ISSUED: March 17, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mathies; Richard A.	Berkeley	CA		
Glazer; Alexander N.	Berkeley	CA		
Ju; Jingyue	Berkeley	CA		

US-CL-CURRENT: 435/6; 435/810, 435/91.1, 536/18.4, 536/22.1, 536/25.32, 536/6.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 5707804 A

L18: Entry 3 of 8 File: USPT Jan 13, 1998

US-PAT-NO: 5707804
DOCUMENT-IDENTIFIER: US 5707804 A

TITLE: Primers labeled with energy transfer coupled dyes for DNA sequencing

DATE-ISSUED: January 13, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mathies; Richard	El Cerrito	CA		
Glazer; Alexander	Orinda	CA		
Ju; Jingyue	Berkeley	CA		

US-CL-CURRENT: 435/6; 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 5055556 A

L18: Entry 4 of 8 File: USPT Oct 8, 1991

US-PAT-NO: 5055556
DOCUMENT-IDENTIFIER: US 5055556 A

TITLE: Fluorescent conjugates for analysis of molecules and cells

DATE-ISSUED: October 8, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		
Oi; Vernon T.	Menlo Park	CA		

US-CL-CURRENT: 530/370; 436/501, 436/547, 436/800, 436/805, 530/391.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 4859582 A

L18: Entry 5 of 8 File: USPT Aug 22, 1989

US-PAT-NO: 4859582
DOCUMENT-IDENTIFIER: US 4859582 A

TITLE: Fluorescent conjugates for analysis of molecules and cells

DATE-ISSUED: August 22, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		
Oi; Vernon T.	Menlo Park	CA		

US-CL-CURRENT: 435/5; 435/6, 436/501, 436/519, 436/547, 436/800, 436/805, 530/807, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 4857474 A

L18: Entry 6 of 8 File: USPT Aug 15, 1989

US-PAT-NO: 4857474
DOCUMENT-IDENTIFIER: US 4857474 A

TITLE: Phycoerythrins useful in fluorescent conjugates

DATE-ISSUED: August 15, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Waterbury; John B.	Woods Hole	MA		
Watson; Stanley W.	Woods Hole	MA		
Glazer; Alexander N.	Orinda	CA		
Ong; Linda J.	Hayward	CA		

US-CL-CURRENT: 436/501; 435/252.1, 435/822, 436/519, 436/536, 436/537, 436/546, 436/800, 530/370, 530/391.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 4542104 A

L18: Entry 7 of 8 File: USPT Sep 17, 1985

US-PAT-NO: 4542104
DOCUMENT-IDENTIFIER: US 4542104 A

TITLE: Phycobiliprotein fluorescent conjugates

DATE-ISSUED: September 17, 1985

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		

US-CL-CURRENT: 436/536; 250/461.2, 436/537, 436/543, 436/544, 436/546, 436/800

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
Draw Desc | Image

☐ 8. Document ID: US 4520110 A

L18: Entry 8 of 8 File: USPT May 28, 1985

US-PAT-NO: 4520110
DOCUMENT-IDENTIFIER: US 4520110 A

TITLE: Fluorescent immunoassay employing a phycobiliprotein labeled ligand or receptor

DATE-ISSUED: May 28, 1985

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stryer; Lubert	Stanford	CA		
Glazer; Alexander N.	Orinda	CA		
Oi; Vernon T.	Palo Alto	CA		

US-CL-CURRENT: 436/501; 436/519, 436/536, 436/546, 436/800, 530/370, 530/371, 530/391.3, 530/402, 530/408, 530/409, 530/410, 530/825

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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Terms	Documents
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L1	recombinant cell same holo-phycobiliprotein	0	L1

END OF SEARCH HISTORY